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AUTHOR Branch, Helen M.; Evans, Dale
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ABSTRACT

In terms of mobility, the average enrollment, and the percent of attendance, Center Hill School has moved toward an ideal set of circumstances for effective instruction. That is, children who enter the school tend to stay, their attendance is more regular, and a larger percentage of the days in the school year are spent in the classroom by each pupil. The facilities are not stretched beyond the point for which they were designed. The Title I, Elementary Secondary Education Act of 1965 program supports the positions of a lead teacher, a certified teacher, and gives instructional aides in addition to the resource rooms where the 112 eligible children are given their compensatory activities. The objectives for this program are: (1) to increase the pupils' basic understanding of words, sentences, paragraphs, and stories; (2) to develop an increased independence in reading; (3) to improve oral communication; (4) to develop and improve skill in identifying information through reading; and (5) to improve the pupils' self-concept and attitudes toward school. One Title I aide is in the Career Opportunities Program. During five weeks beginning June 1972, a group of approximately 30 participants was enrolled in an English course at Clark College to learn about self-expression through writing. (Author/JM)

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RESEARCH AND DEVELOPMENT REPORT

Vol. VII, No. 50 April, 1974

A PROGRAM TO IMPROVE SCHOOL ACHIEVEMENT IN A STABLE RESIDENTIAL COMMUNITY

CENTER HILL ELEMENTARY SCHOOL
1972-73

E. C. Norman
Principal

Mrs. Shirley Fannings
Lead Teacher

Prepared by

Helen M. Branch
Research Assistant

Dale Evans
Statistician

Dr. Jarvis Barnes
Assistant Superintendent
for Research and Development

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Dr. Alonzo A. Crim
Superintendent

Atlanta Public Schools
224 Central Avenue, S.W.
Atlanta, Georgia 30303

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TABLE OF CONTENTS

	Page
RATIONALE	1
NEEDS	2
GOALS	2
BEHAVIORAL OBJECTIVES	3
CRITICAL VARIABLES	3
STAFF AND FACILITIES	4
SUPPORTING PROJECTS	
Career Opportunities Program	5
Title I	5
EVALUATION	6
PROGRAM	8
FINDINGS	
Achievement -- Overall	9
Iowa Tests of Basic Skills	10
Iowa Tests of Basic Skills -- Composite Scores	16
Achievement -- Title I	16
Title I Reading Gains	19
School Sentiment Index	21
Questionnaires	22
Parents	23
Pupils	24
COST ANALYSIS	26
CONCLUSIONS	28
APPENDIX	
Questionnaire for Teachers	A-1
Questionnaire for Parents	A-2
Questionnaire for Pupils	A-3

LIST OF TABLES

Number		Page
1	Mobility, Enrollment and Per Cent of Attendance	2
2	Overall Achievement Quotients and Percentile Ranks	10
3	Achievement Quotients by Grade Level, Iowa Tests of Basic Skills, April, 1973	11
4	Iowa Tests of Basic Skills, Composite Scores	18
5	Grade Equivalent Scores for Title I Pupils, Metropolitan Achievement Tests (MAT), Pre and Post 1972-73	18
6	Title I Gains in Reading Scores of Metropolitan Achievement Tests Per Cent of Pupils Gaining 5 Months or More	19
7	Grade-Wise Gain in Grade Equivalent Scores of Metropolitan Achievement Tests (MAT), Reading subtest	19
8	Rank-Order of Scores of Teachers, Aides, College Students, and National Norms on Opionnaire On Attitude Toward Education in 3 Categories	20
9	Change in Percentage of Positive Answers School Sentiment Index, Pretest and Posttest	22
10	Cost Analysis	27

LIST OF FIGURES

Number		Page
1	Reading Achievement	12
2	Math Achievement	13
3	Study Skills Achievement	14
4	Language Usage Achievement	15
5	Patterns of Achievement in Relation to National Norms	17

I. RATIONALE

Center Hill community, containing chiefly residential and commercial activities is located in the northwest section of the city in which houses are the exclusive dwelling unit. There are no apartment buildings. The households are in the majority two parent nuclear families, a large number of which participate in a community organization which is concerned with not only problems related to the school, but also to consumer affairs, voter registration, and employment practices. However, 59 per cent of the children in the Center Hill School area are from low-income families and are eligible for assistance through Title I activities. The school population of approximately 600 pupils is very stable as indicated by the mobility figures for the last three years. These figures indicate that the school ranks in the lower half of the system's schools in the rate of in and out migration of students. It further indicates that this rate has been slowing down over the last three years.

Another factor which gives information about the school and community is that of average attendance. The attendance figure indicates that per cent of pupils attending regularly has increased at a low rate over the last three years. Though this is not a dramatic increase, it does indicate that for some reason more pupils and their parents are intent upon regular attendance at school. The average enrollment for any year can contribute a little to the picture of the characteristics of the school. These average enrollment figures show a steady decline in the attendance at Center Hill School each year. Since at one point their facilities were overcrowded, this decline is seen by the majority of the staff in the school as an aid to more effective instruction.

In consideration of the three factors of mobility, the average enrollment, and the per cent of attendance, it can be seen that Center Hill School has moved in the most recent three years toward what might be considered an ideal set of circumstances for effective instruction. That is, children who enter the school tend to stay, their attendance is more regular, and a larger percentage of the days in the school year are spent in the classroom by each pupil. In addition to those factors, the facilities are not stretched beyond the point for which they were designed. (See Table 1.)

TABLE 1

MOBILITY, ENROLLMENT AND PER CENT OF ATTENDANCE

	70-71	71-72	72-73
Average Enrollment	724	678	629
Mobility	.17	.15	.13
Per Cent Attendance	93.5	93.9	95.0

II. NEEDS

Pupils at Center Hill School score on the average below national and local norm on standardized achievement test. Their achievement in reading and arithmetic even when consideration is given to the lower socio-economic status (as indicated by Title I figures) is below their predicted potential. [According to Predicted Achievement reported by Research and Development Division of the school system (See Section X)]. Therefore a need is indicated for improved academic skills in order to achieve the level of performance which national norms would indicate is average. Aspirations of pupils need to be directed toward success in those tasks associated with school achievement. Activities within the school environments are judged by teachers and principals to indicate a need for greater skills of socialization so as to allow fuller participation as responsible and productive citizens. Since full cooperation between home-school- and community is essential in a well rounded development of pupils, there is a need to develop greater participation in the school program of parents and all other element of the community.

III. GOALS

In order to meet the needs of the pupils at Center Hill School, the following goals have been stated:

A. To increase academic achievement of pupils through instructional activities planned with specific individual characteristics of the children in mind.

B. To enhance the self-concept and school attitude of each pupil with the view toward heightened academic aspirations.

C. To increase the degree of interaction between school and community with the expectation that cooperation between these educating agents will identify ways to teach those citizenship skills which are essential to harmonious living in classroom and neighborhood.

IV. BEHAVIORAL OBJECTIVES

A. At least 75 per cent of all Title I pupils in grades one through seven will increase their reading achievement level by five months or more as measured by Metropolitan Achievement Tests (MAT) during the school year.

B. Pre and post measures of self-concept and school attitude will indicate a positive change during the school year.

C. There will be recorded indications of a variety of activities involving parents in classroom participation; and teachers will report contact with 100 per cent of the parents through in-person or telephone conferences with the social workers assistance.

V. CRITICAL VARIABLES

A. Reading Skills.

1. Word knowledge.

2. Word analysis.

3. Comprehension.

B. Parent Involvement.

C. Attitudes.

1. Self-concept.

2. School sentiment.

VI. STAFF AND FACILITIES

The Center Hill School building is about 45 years old and has the traditional classroom arrangement having no clusters or flexible classroom space, but 21 regular classrooms and 2 portable units each containing two rooms. Kindergarten through third grade classes are each in self-contained elements. Beginning in fourth grade, classes are departmentalized for mathematics, science, social studies, and language arts. A special education teacher gives specialized assistance to those children needing it, while the child socially remains integrated in the regular classroom. There is a music room used by an itinerant vocal music teacher on Monday, Wednesday, and Friday for grades one through seven; and an art teacher is in residence for two full weeks at a time alternating with another school for two weeks. In addition, there are teachers for band and string instruments two days each per week, and a speech teacher for ten pupils two and one-half days each week.

A full time librarian provides not only book circulation, but also regular instruction in the use of the library. She cooperates with teachers in development of resources for teaching units, and allows free use of the library when classes are not scheduled, and coordinates the utilization of instructional media.

Five teacher aides and one certified teacher, under the supervision of the lead teacher, assist the Title I students in English/Reading activities only, utilizing two resource rooms and specialized instructional activities, equipment, and materials. Special equipment and materials being used include the Talking Page, Barnell-Loft Specific Skills Series, Macmillan Reading Spectrum, SRA Kits, Listen and Do Kits, and a Controlled Reader with accompanying software for effective instruction in comprehension.

A part-time social worker is involved with students and their families in the Center Hill community. Emphasis is placed on cataloguing problems and needs of families and referring families to agencies that can help them when the situation is beyond the capabilities of the social worker. She serves as a liaison between the school staff and home, in identifying, understanding, and working to resolve certain family-school centered problems.

In working with the child, she offers the child help in making a satisfactory school adjustment. Problems which may lead to referrals are: Failure in school subjects with no apparent cause, truancy, timidity, fearfulness, withdrawal, overly agressive behavior, inability to accept authority, problems in social adjustment, emotional problems, and parental neglect.

Inservice Activities

Inservice activities were provided for the instructional aides by the lead teacher and through utilization of television programs. In addition, teachers utilize Area IV office resource teachers for assistance in planning workshops in the area of reading. The activities for aides included instruction in preparing learning games for teaching reading.

The professional teaching staff met regularly to develop their skills in teaching reading. They used peer-teaching techniques in these sessions to perfect their diagnosis, instructional, and remediation skills.

VII. SUPPORTING PROJECTS

Career Opportunities Program

One Title I aide is in the Career Opportunities Program (COP) and is taking course work at Georgia State University. The objectives for this special project are (a) to enhance the opportunities for pupils to develop higher levels of academic performance by providing the extra instructional assistance of a paraprofessional who is working toward professional credentials and (b) to increase the economic status of the aides through professional competence.

A summer program was held for five weeks beginning June 12, 1972. During the session, a group of approximately 30 participants were enrolled in an English course at Clark College to learn about self-expression through writing. A report of that session included writing samples from some of the students. These samples underscored the value of the college training to the participants. Most would have found higher education impossible without COP. In July, the lead teacher participated in a workshop designed to increase effective utilization of the paraprofessionals.

Title I

The Title I program supports the positions of a lead teacher, a certified teacher, and five instructional aides in addition to the resource rooms where the 112 eligible children are given their compensatory activities. The objectives for this program are:

A. General Objectives

1. To increase the pupils' basic understanding of words, sentences, paragraphs, and stories.

2. To develop an increased independence in reading. This includes being able to demonstrate maturity in reading habits and in attitudes toward reading for enjoyment.

3. To improve oral communication, such that the pupils may demonstrate proficiency in talking and listening.

4. To develop and improve skill in identifying information through reading.

5. To improve the pupils' self-concept and attitudes toward school.

B. Behavioral Objectives

1. Pupils will show a gain of at least one month for each month in the activity in the following areas.

   a. Word knowledge.

   b. Word analysis.

   c. Reading comprehension.

2. Pupils will demonstrate more positive attitudes toward school than similar pupils who do not participate in the activities.

3. Pupils will show improved self-concept. The desired change will be statistically significant at the .05 level.

VIII. EVALUATION

To measure progress made in achieving the goals and objectives, formal and informal measures were used. The achievement tests are instruments validated on nationwide norm groups according to accepted statistical practices. Therefore, they can be depended on for a high degree of reliability and validity. However, the attitude tests and the questionnaires are extremely limited as dependable measuring instruments. They can, however, give some insights into the factors which contribute to a school's overall effectiveness.

Both kinds of tests, however, must be recognized as having the limitation always imposed by standardization. That is, the unique characteristics of the pupils, teachers, parents, and the local community reflected were not in the test construction. Therefore, interpretation of test results must reflect the population's features that differentiate it from the norm. The Division of Research and Development has generated a Predicted Achievement Quotient which may be considered to reflect the limitation. It will be discussed in Section X.

To verify changes in achievement levels of Title I participants, measures of the Metropolitan Achievement Tests (MAT) were utilized. Published by Harcourt, Brace, and World, Inc., the subtests Word Knowledge, and Reading, 1959 Revision were used. The test series' first edition appeared in 1932 and a second edition in 1947-1950.

Norms were established in 1958 for the edition used. The sample for establishing the norms was 500,000 pupils tested in 225 school systems stratified for four geographic regions, and seven categories of population number. Reliability coefficients ranged from .81 to .95 on the various subtests.

In addition, scores for Iowa Tests of Basic Skills (ITBS) were analyzed. The Iowa Tests of Basic Skills (ITBS) prepared at the University of Iowa under the direction of A.N. Hieronymus and E.F. Lindquist is used for state-wide testing as well as in the local system. The tests were standardized with a norm group of 127,265 pupils stratified for geographic region, size of city, and percentage of population in total. In Georgia, the norm group was represented by pupils from Atlanta, the Atlanta Diocese of Catholic Schools and Quitman County.

The scores on the ITBS are reported as grade equivalents; meaning that the raw score of any pupil is the same as that made by a typical pupil at the grade level of his grade equivalent score. The grade equivalent should be regarded as an estimate of where the pupil is along a developmental continuum, not where he should be placed in the graded organization of the school.

The tests measure only a part of the outcomes sought in schools -- only the basic skills which are amenable to objective measurement.

The School Sentiment Index from Instructional Objective Exchange provided data from which estimates of growth in the affective area were made.

This index is an inventory of thirty questions read orally by the tester. Pupils mark their papers yes or no on specially designed sheets. The primary level version has special picture-keyed response sheets. The questions concern several aspects of school attitudes: teacher, learning, climate, peer, and general. Administered outside the regular classroom by an objective tester (not the teacher) and in complete anonymity, the test asks straight-forward questions such as, "Do you like the other children in your class?" Results are reported as the percentage of positive responses.

At the beginning of the year both School Sentiment Index (SSI) and Self-Appraisal Inventory (SAI) were administered. However, when a correlation coefficient was computed, it was found that the two were related at a level above .90. Therefore, it was decided to administer only the School Sentiment Index (SSI) as a posttest and consider the findings to be a reflection of both self-concept and school attitude. It is likely that there is considerable interaction between the two.

In addition, questionnaires were sent out soliciting the opinions of pupils, teachers, and parents regarding the effectiveness of the instructional program and requesting suggestions for programs and procedures which might enable school personnel to reach the goals identified. (See Appendix for Questionnaire form.)

The Opinionnaire On Attitudes Toward Education was administered to a sample (N=9) of the teachers in Center Hill School.

It is a fifty-item scale constructed by H.C. Lindgren and G.M. Patton in 1958 to measure attitude toward child-centered policies and practices in education. The statements are concerned with the desirability of the teacher's using authoritarian methods as a means of controlling the behavior of students, the desirability of subject-matter-centeredness as contrasted with learner-centeredness as contrasted with learner-centeredness.

The reliability coefficients range from .64 for a short form to .82 for the fifty-item form, and .99 for a Portuguese version used in Brazil.

IX. PROGRAM

The instructional program included the normal activities associated with the learning of the basic skills of reading, arithmetic, and other academic areas. In addition, faculty and staff of Center Hill School in response to their identified needs for pupils to develop social skills, planned a variety of activities to meet such a need.

School assembly programs were held monthly for the purpose of teaching audience and participation skills. Children participated in the planning for programs and performed in such areas as introducing speakers, reciting poems, conducting panel discussions, and other types of presentations on such topics as drug abuse, improving attendance, and their preferences for instructional practices.

Study trips are recognized by educational authorities as important for moving toward the achievement of both intellectual and social objectives. Trips away from the school grounds are listed.

STUDY TRIPS 1972-73 SCHOOL YEAR

Trip	Date	No. of Students and Grade
Memorial Arts Center	10/20/72	180 from 3rd, 4th, and 5th Grades
Peachtree Battle Theatre to see "Sounder"	12/1/72	190 from 6th and 7th Grades
Memorial Arts Center	2/5/72	180 from 3rd, 4th, and 5th Grades
Memorial Arts Center	3/23/72	180 from 3rd, 4th, and 5th Grades
Memorial Arts Theatre	3/5/72	26 from 5th Grade
Coca-Cola Bottling Company	3/7/72	82 from 5th Grade
Tour of the City and Grant Park Zoo	4/6/72	85 from 2nd Grade
Tour of Atlanta	5/24/72	72 from 1st Grade
Arts Festival of Atlanta	5/25/72	170 from third and 4th Grades
North Lake Mall	5/25/72	50 from Kindergarten
Grant Park Zoo	5/18/72	90 from 6th Grade
Stone Mountain	5/25/72	85 from Seventh Grade
Grant Park Zoo	6/1/73	50 from Kindergarten

X. FINDINGS

Achievement - Overall

When the achievement test scores are examined in relation to national norms, it appears that, in all areas, Center Hill pupils fall below the norm after third or fourth grade. See Figures 1, 2, 3 and 4.

In examining the research literature for findings of other researchers concerning pupil achievement, members of the Division of Research and Development observed that several factors were involved other than quality of instruction, which could affect the outcomes of educational programs. Using this information, a prediction-formula was developed so that, for each school in the system, an achievement quotient reflecting the reasonable expectation for achievement could be computed.

The factors included in the predicted achievement level were:

number of free lunches (reflecting the socio-economic status of the pupils)
mobility of pupils in and out of the school district
previous scores on achievement tests
pupil-teacher ratio
per cent of attendance.

For Center Hill School, the Predicted Achievement Quotient was 99. This figure comes from dividing the predicted by the actual score and indicates that pupils in this school achieved 99 per cent of the achievement score which could be expected, given the handicap of cultural factors which the school does not control. This rate of achievement places the school in the 56th percentile of the schools in the Atlanta system. The achievement related to national norms indicates that pupils reached 75 per cent of the national norm level of achievement; and this places them in the 44th percentile within the system. Tables 2 and 3 show this information.

TABLE 2

OVERALL ACHIEVEMENT QUOTIENTS AND PERCENTILE RANKS

Predicted Quotient	Percentile within Atlanta System	National Norm Quotient	Percentile within Atlanta System
99	56	75	44

Iowa Tests of Basic Skills

In March of 1973 all pupils were given the Iowa Tests of Basic Skills (ITBS) to assess the level of accomplishment in the basic cognitive areas of school achievement goals. The test battery includes subtests in reading and math for all grades; and additionally for grades three through seven: spelling, capitalization, punctuation, and usage in the language skills area, and map, graph and table reading as well as reference materials use in the area of study skills.

Findings of these tests are summarized in the graphs, Figures 1, 2, 3, and 4. The graphs indicate the level of attainment relative to a national norm. The dotted line indicates the level of attainment expected at the sixth month of a grade year, the time at which the test was administered. The other lines represent the level achieved by the highest and lowest fourth of the pupils in each grade level, and the mean score of the whole group.

TABLE 3

ACHIEVEMENT QUOTIENTS BY GRADE LEVEL
IOWA TESTS OF BASIC SKILLS, APRIL 1973

Grade	Grade Equivalent Score			Summary Indices	
	Actual	Predicted	Acceptable	Predicted Achievement Quotient	National Norm Quotient
			Reading Test Data		
2	1.6	2.1	2.7	74	58
3	3.2	2.8	3.8	116	84
4	3.3	3.1	4.7	106	70
5	3.8	4.2	5.7	90	66
6	4.4	4.7	6.7	93	65
7	5.1	5.3	7.6	96	66
			AVERAGE	95	68
			Mathematics Test Data		
2	2.2	2.2	2.6	98	84
3	2.9	2.9	3.7	100	79
4	3.5	3.3	4.7	106	75
5	4.4	4.5	5.6	98	77
6	4.9	5.0	6.6	97	73
7	5.7	5.7	7.6	100	74
			AVERAGE	99	77
			Composite Test Data		
2	1.9	2.3	2.6	82	71
3	3.3	2.9	3.7	112	88
4	3.7	3.3	4.7	112	78
5	4.1	4.4	5.7	92	72
6	4.7	4.9	6.7	95	70
7	5.7	5.5	7.6	102	74
			AVERAGE	99	75

CENTER HILL ELEMENTARY SCHOOL
READING ACHIEVEMENT
1972-73
IOWA TESTS OF BASIC SKILLS

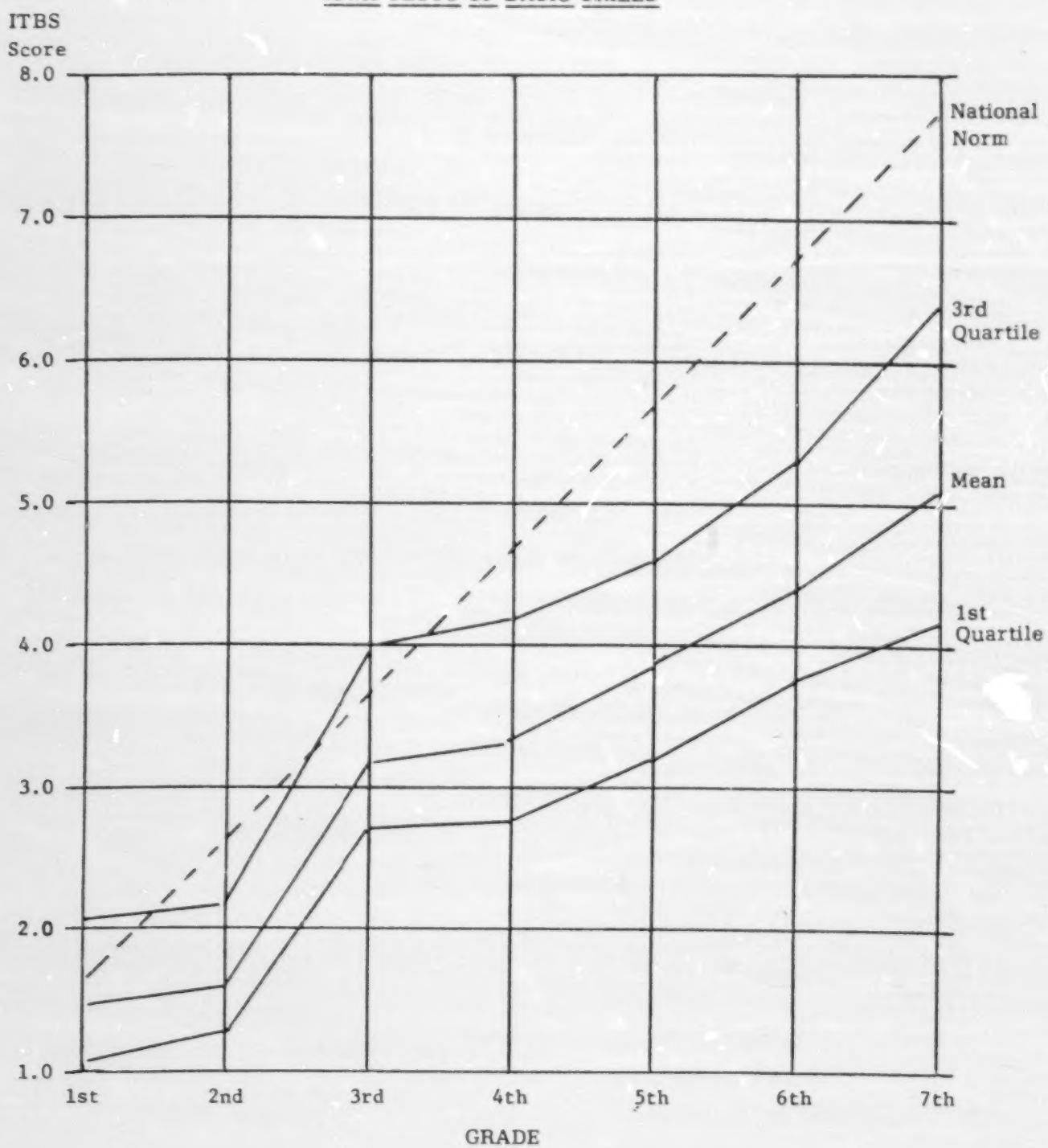

FIGURE 1

CENTER HILL ELEMENTARY SCHOOL
MATH ACHIEVEMENT
1972-73
IOWA TESTS OF BASIC SKILLS

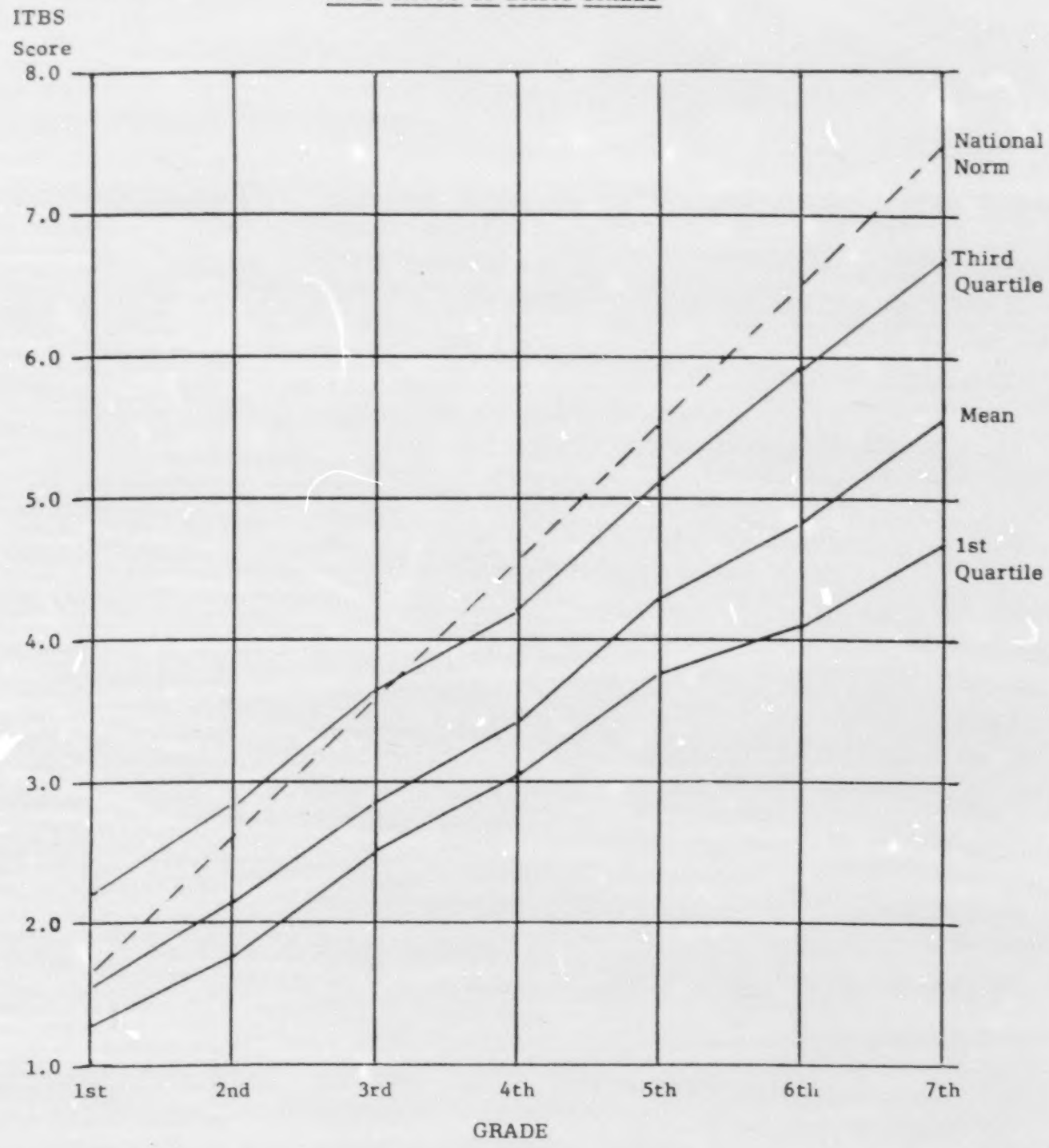

FIGURE 2

CENTER HILL ELEMENTARY SCHOOL
STUDY SKILLS ACHIEVEMENT
1972-73
IOWA TESTS OF BASIC SKILLS

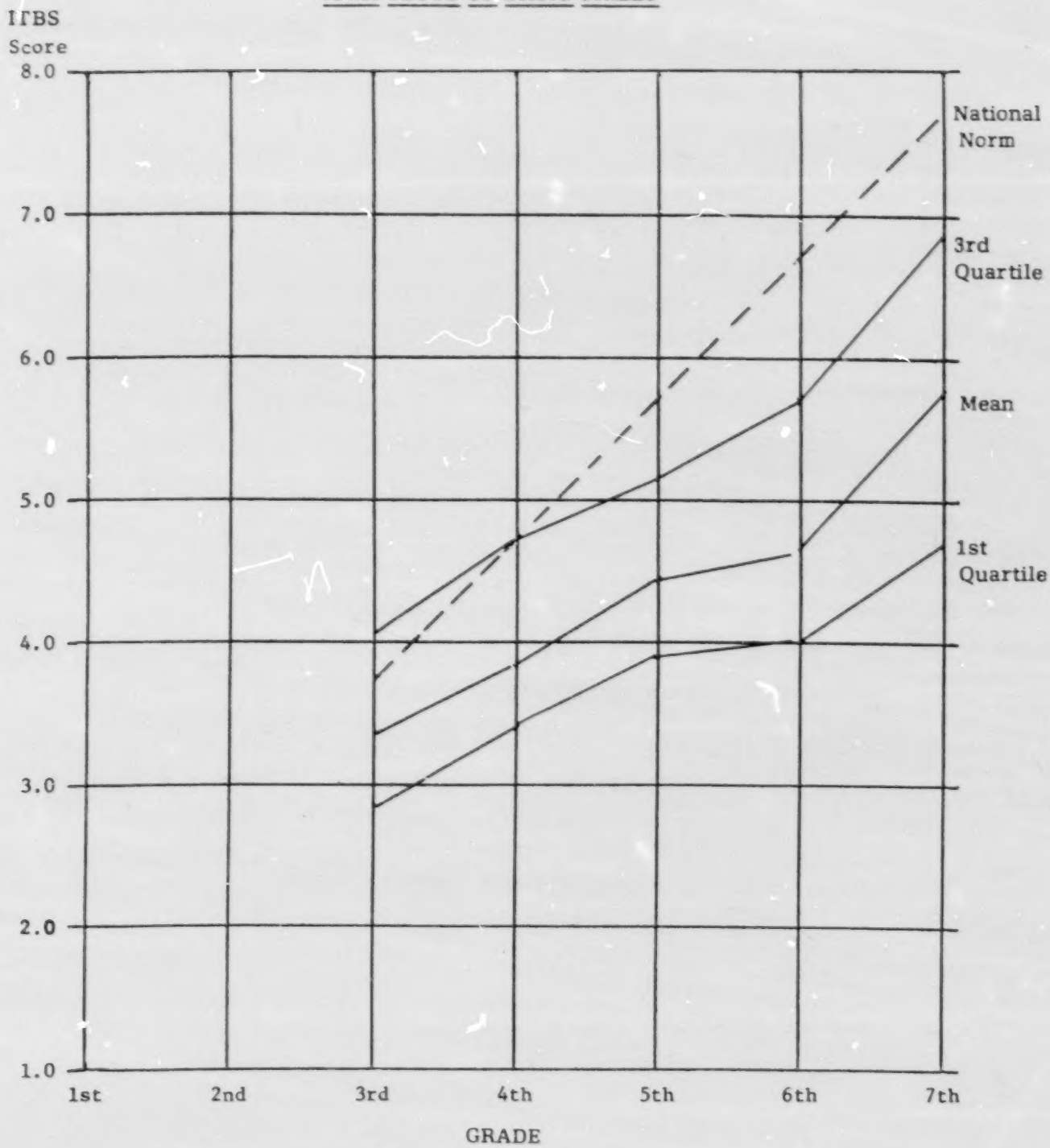

FIGURE 3

CENTER HILL ELEMENTARY SCHOOL
LANGUAGE USAGE ACHIEVEMENT
1972-73
IOWA TESTS OF BASIC SKILLS

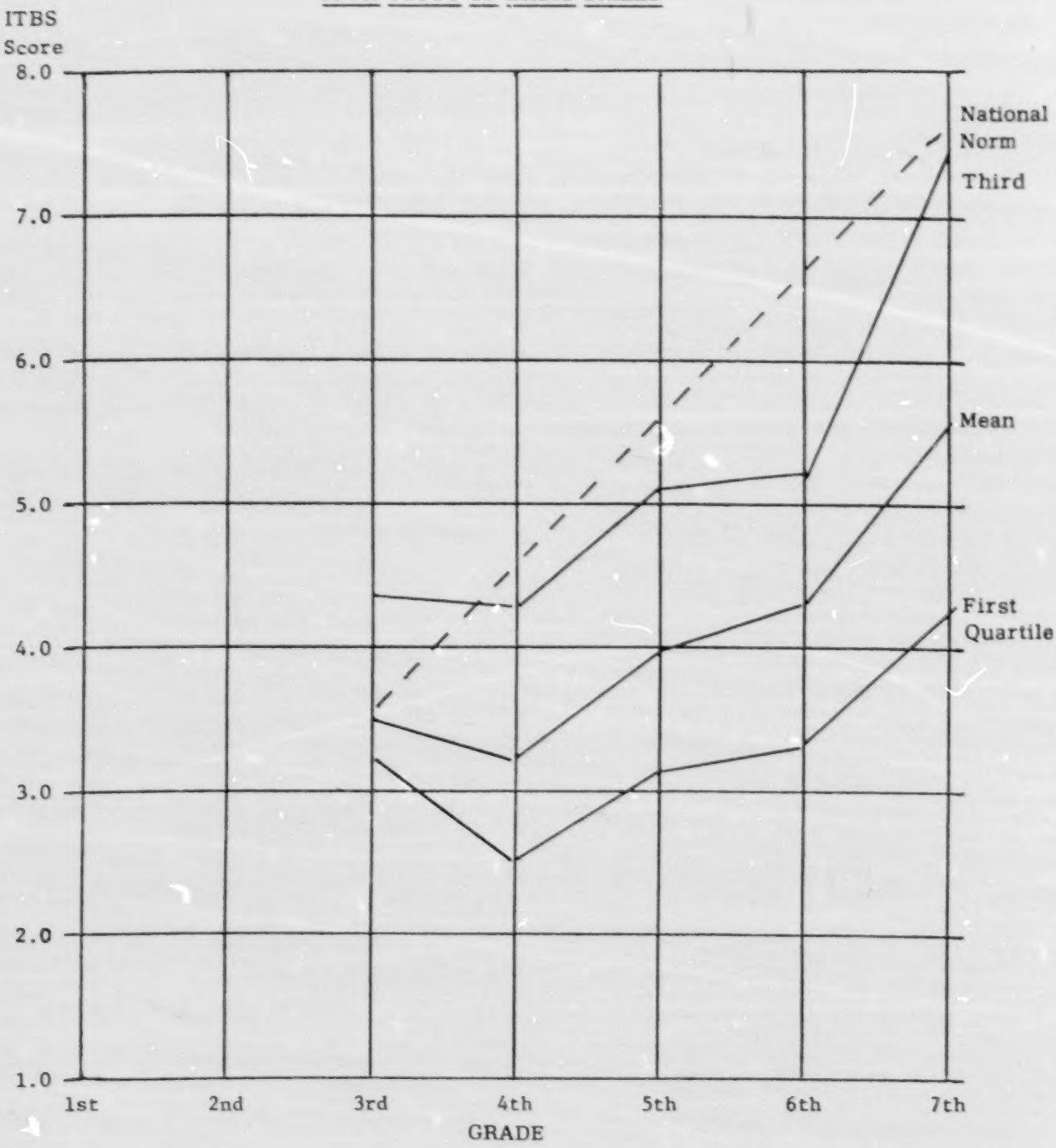

FIGURE 4

An interesting observation to be made from these results is that in this school as well as in others (See Figure 5) the point at which scores break away from the national norm is 3rd or 4th grade. This presents a number of ideas about which one may speculate.

One might consider that school is less effective the longer a pupil remains in it. This appears to be true. But it may be due less to anything the school does than to various factors in the pupil's sub-culture of peers and interaction with communication media. Once the pupil reaches 8 or 9 years of age his allegiance changes from an attachment to parents and other adult authority figures to a regard for status persons and symbols in the "main stream." If reading, math, standard language patterns, and other school learning activities are not highly important to these status people and not obviously necessary to the acquisition of status symbols, then it is quite unlikely that the pupils will concentrate a large portion of their personal attention and resources on school tasks.

In spite of the speculation that may take place regarding cause and effect, it can be observed that pupils' scores do continue to move in a direction generally parallel to that of the national norm indicating that progress is taking place even though the rate slows markedly at certain points.

Iowa Tests of Basic Skills, Composite Scores

The very great difference between faster and slower learners is apparent in Table 4 which shows the composite grade equivalent scores for first and third quartiles of pupils in each grade level. The average overall gain for each group varies from .6 to .8 as compared to 1.0 which represents a full year of gain which is the standard expectation nationally.

It is interesting to note that this table reinforces the findings of others that fast and slow learners, though different in rate of learning, do proceed through similar peaks and troughs in maturational development. Note the much greater gain from second to third grade and from sixth to seventh grade for both highest and lowest quartiles--following a similar pattern, through attaining different levels of accomplishment.

Achievement - Title I

A lead teacher, a certified teacher and four aides work with 112 pupils in the Title I English-Reading Program toward increasing reading skills. The objective was one month gain for one month of instruction. Table 5 shows the progress made as indicated by Metropolitan Achievement Tests (MAT), administered in fall and spring, five months between pretest and posttest. The results indicate that the objective was attained in reading alone. However, considering overall gain - .35 the overall gain including word knowledge, the objective was not attained.

FIGURE 5

PATTERNS OF ACHIEVEMENT IN RELATION TO NATIONAL NORMS

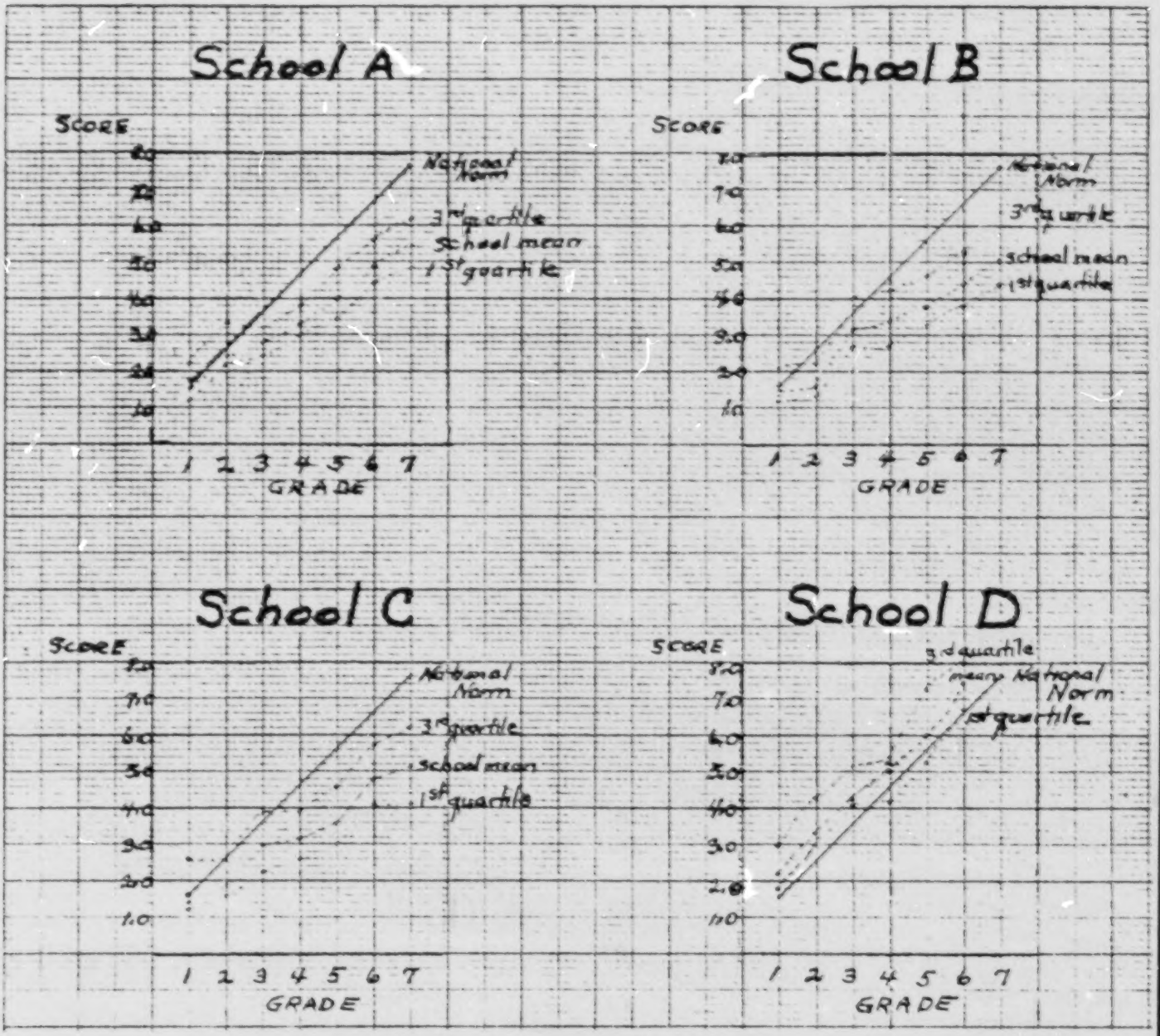

TABLE 4

IOWA TESTS OF BASIC SKILLS COMPOSITE SCORES

Grades	First Quartile	Mean	Third Quartile	Norm
1	1.2	1.5	2.2	1.6
2	1.7	1.9	2.8	2.6
3	3.0	3.3	3.8	3.6
4	3.2	3.7	4.5	4.6
5	3.7	4.1	4.8	5.6
6	4.1	4.7	5.6	6.6
7	4.8	5.7	7.1	7.6
Average Overall Gain Per Year	.6	.7	.8	1.0

TABLE 5

GRADE EQUIVALENT SCORES FOR TITLE I PUPILS
METROPOLITAN ACHIEVEMENT TESTS
PRE AND POST, 1972-73

	Word Knowledge				Reading			
Grade	N	Pre	Post	Gain	N	Pre	Post	Gain
2	24	1.45	2.48	1.03	22	1.66	2.45	.79
3	11	2.17	2.66	.49	11	1.78	2.78	.24
4	11	3.24	2.23	-1.01	10	1.82	2.06	.24
5	12	3.22	3.18	- .04	12	2.79	3.00	.21
6	13	3.00	3.38	.38	13	3.03	3.46	.43
7	13	3.52	4.06	.54	12	2.94	3.78	.84
Total	84		Mean	.29	80		Mean	.46

Title I Reading Gains

Although second and seventh grades did achieve the objective of 75 per cent of the pupils gaining 5 months or more in scores on reading achievement tests, the overall goal for the school was not reached. Table 6 shows per cent of pupils reaching criterion performance level in each grade, and Table 7 the average grade equivalent gain in each grade. Grades four and five seem to have special needs in developing word knowledge, as they appear to have regressed from pretest to posttest with gain scores of -1.01 and -.04 respectively. Such a loss seems highly inconsistent with a gain in Reading Comprehension, as word knowledge would seem to be pre-requisite to comprehension. Possibly some error in testing or scoring can account for the differences.

TABLE 6

TITLE I GAINS IN READING SCORES OF
METROPOLITAN ACHIEVEMENT TESTS
PER CENT OF PUPILS GAINING 5 MONTHS OR MORE

Grade	1	2	3	4	5	6	7	Overall Per Cent
Word Knowledge		.80	.35	.11	.20	.53	.75	.46
Reading Comprehension		.98	.54	.28	.29	.62	.76	.58

TABLE 7

GRADE-WISE GAIN IN GRADE EQUIVALENT SCORES
OF METROPOLITAN ACHIEVEMENT TESTS,
READING SUBTEST

	1	2	3	4	5	6	7	Overall School	Overall City-Wide
Reading		.7	.6	.2	.2	.5	.7	.5	.63

Career Opportunities Program

Although there is no way to precisely assess the effect on pupil achievement of the one COP aide, it can be assumed that her participation in activities designed to enhance instructional skills did result in better learning activities for pupils, supporting one of the objectives of the program.

Another objective was that of increasing economic status of aides through increased professional competence. This is a somewhat long range objective owing to the fact that increased income is realized only after a year or more of participation. Assuming that the aide finishes the training begun, there will be a material increase in her income for the coming school year because of the several salary scales for the different classifications of paraprofessionals and certificated teachers.

Opinionnaire on Attitudes Toward Education

This instrument was administered to a sample of Center Hill teachers (N=9) and the results compared with other schools in the Atlanta system and with scores of some teachers-in-preparation at Georgia State University, as well as with national norms. Table 8 shows findings that indicate Center Hill teachers rank with the national norm in their attitudes.

TABLE 8

RANK-ORDER OF SCORES OF TEACHERS, AIDES, COLLEGE STUDENTS, AND NATIONAL NORMS ON OPINIONNAIRE ON ATTITUDE TOWARD EDUCATION IN 3 CATEGORIES

Note: The higher the score the more child-centered, the lower the more subject-centered.

I. Pre-service College Students:		
Elementary Female	43.7	
Secondary Female	40.2	Mean: 40.9
Secondary Male	38.8	
II. National Norm		
Elementary Female	37.6	
Elementary Male	36.4	Mean: 36.3
Secondary Female	33.8	
Secondary Male	33.5	
III. Atlanta Schools (34 Elementary Title I)		
Highest	40.0	
Center Hill	35.5	Mean: 36.2
Lowest	34.1	

School Sentiment Index

Table 9 indicates the change in percentage of positive answers from pre to post tests. A noteworthy factor not shown in this table is that whether the change is gain or loss the net change left a majority of positive responses in all but:

First Grade - Title I - peers (48 per cent)
Fourth Grade - Title I peers (50 per cent)

This finding suggests that the majority of the pupils at Center Hill School have a positive attitude toward school in general. However, the fact that of the fourteen categories (Title I and Control) 8 of them decreased this positive attitude during the year, suggests that some of the positive attitude "washes out" as the school year wears on.

Of the seven Title I groups only two of them (3rd and 5th grades) increased their positive perceptions. This may be understandable considering the fact that they are the least successful students and would become weary of the activities toward the closing of the school year.

Of considerable significance in making observations about the school sentiment is that only two of the fourteen categories of pupils registered a loss in their positive attitude toward the teacher. The data from which Table 7 was made indicate that in these two cases, one had 58 per cent positive responses and the other had 80 per cent positive at the beginning of the year. There was a loss, but it put neither in the position of majority negative responses.

Regarding appraisal of the school climate, 4 of the 7 Title I groups and 6 of the 7 Control groups increased or held constant their positive view. This further supports the previous statement about the majority having a positive attitude toward school.

The negative picture of attitudes toward school appears in the decline of positive attitude among 5 out of 7 of the Title I groups, whereas a decline appeared in only 1 Control group (Sixth Grade). This trend is clearly discernable in the category of relationship with peers. In only one group (Third Grade) did the Title I pupils express an increase of positive feelings. Surely these findings support the notion that there is a relation between success in school and attitudes toward self and school. Since the decline is seen most frequently in relation to peers, and since this peer category had two groups with below majority percentage of positive responses, it can be assumed that lack of success in school and poor peer relationships interact with each other.

TABLE 9

CHANGE IN PERCENTAGE OF POSITIVE ANSWERS
SCHOOL SENTIMENT INDEX
PRETEST TO POSTTEST

Grade		Teacher	Peer	Subjects	Climate	General	Overall Change
1	Title I	+15	-12	0	-10	- 6	-
	Control	+10	+ 5	+ 5	+24	0	+
2	Title I	+ 8	- 3	- 3	- 5	-11	-
	Control	+ 5	+ 6	0	+10	- 4	+
3	Title I	+22	+10	+11	+25	0	+
	Control	+ 3	+ 4	- 8	+ 9	-2	+

Grade		Teacher	Peer	Learning	Social	General	
4	Title I	- 3	0	-17	+ 4	+14	-
	Control	+ 5	+12	0	+ 3	+17	+
5	Title I	+ 2	- 6	+10	0	+ 9	+
	Control	+ 8	- 7	0	+ 3	+12	+
6	Title I	+ 1	0	0	- 2	-19	-
	Control	- 5	- 1	+ 9	- 2	-32	-
7	Title I	0	- 2	-13	+ 4	-14	-
	Control	+ 1	+ 7	+ 2	+ 3	- 1	+

Questionnaires

Questionnaires were distributed non-systematically to teachers (25), parents (100), and pupils (150) for voluntary, anonymous responses. (See Appendix for questionnaire forms).

Teachers responded to questions concerning what objectives they had worked on other than those related to cognitive acquisition as measured by standardized achievement tests. Only three responses were received from this group. However, upon comparing these responses to comments of pupils and parents, they seem

to have identified needs mentioned by pupils and parents and this would indicate valid concerns probably representing the entire group of teachers in the school. The objectives were in the affective domain of educational objectives:

1. Attitude of responsibility.
2. Honesty.
3. Respect for fellow man.
4. Emotional readiness for learning.
5. Self-confidence.
6. Positive regard for people and society.

Factors mentioned which helped the teachers move toward their goals were:

1. Pupil participation in planning programs and sharing of ideas.
2. School leadership.
3. Daily games and physical activity.

The only factor mentioned which was needed for a more effective school program was parent involvement.

Parents

Thirty parents completed the 100 questionnaires which were sent home from school by the children. The forms were attached to an addressed, stamped, envelope to assure anonymous, independent return to Division of Research and Development. These questionnaires asked for comments about things that were best and worst about the school and what was needed to improve the school.

Best - A majority of the responses mentioned either teachers, principal or both as the outstanding strength of the school. Others were:

1. Close proximity to home.
2. Children learn at own rate.
3. Good PTA.
4. Afternoon activities.
5. Good regulation.
6. Educational trips.
7. Good Discipline.

Worst - No one trait was mentioned by a large number of respondents. Three mentioned lack of auditorium or gymnasium. Five mentioned various other aspects of physical plant. Responses included:

1. Uncooperative parents.
2. No air conditioning.
3. No sidewalks.
4. Inadequate classroom space.
5. Poor recreational facilities.
6. Teachers absent too much.
7. No teacher's aides.
8. Poor discipline of children.
9. Poor food for lunch.
10. No prayer in classroom.
11. Poor rest rooms.

Needs - Among the needs mentioned was modification of several traits listed in the Worst category. The needs mentioned 2-5 times were:

1. A gymnasium.
2. Lockers "so children won't steal each others books."
3. Teacher aides.
4. Parent cooperation.
5. Improved book activities.

Other needs mentioned were in the category of more outside activities like trips, recreation, and musical instrument training; and also:

1. Shorter classes.
2. God back in school.
3. Common-sense learning.
4. Black education.
5. Prayer.
6. Stop knives at school.
7. Better books.
8. Air conditioning.

Pupils

One hundred and eight pupils, boys and girls, grades two through seven responded that they liked school. Three boys and one girl said they did not like the school they attend.

A vast majority of responses as to what was best about the school indicate principal and teachers receive the highest rating of importance. The next most frequent factors were friends and art and music. Others mentioned 1-2 times were:

1. Outside play.
2. Math.
3. Convenience.
4. Library.
5. Trips.
6. Fire drills.
7. Games.
8. Getting report card.
9. Helping teachers.
10. Sports teams.
11. Work that's fun.
12. Bank.
13. Science.
14. Programs.
15. Trips.

Items students reported that they would like to be able to do were:

1. Sewing.
2. Work in the office.
3. Teach the class once.
4. Play in the band "but I don't have the right talent."
5. Art every week.
6. Eat candy and chew gum.
7. Be helpful.
8. Ride bike to school.
9. Play outside longer.
10. Eat two lunches.
11. Have free choice of classes and activities.

Things pupils report that they do not like: (1-3 times)

1. Work and carry books home.
2. Eat lunch.
3. Math.
4. Social Studies.
5. Homework.
6. Science.
7. Write.
8. Getting punished for something I didn't do.
9. Constant work.
10. People to have fights.
11. The last day of school.

Needs reported 3-5 times.

1. Air conditioning.
2. Gymnasium.
3. Lockers.

Other needs: (1-2 times)

1. Respectful students.
2. Hot water.
3. Water fountains.
4. Better food.
5. Swimming pool.
6. Carpet.
7. Snack Bar.
8. Garden Room.
9. Better Ball field.
10. Record players.
11. Better children.
12. Better rest rooms.
13. Paint the walls and fix windows.
14. Intercom system.
15. Film projector.
16. Typewriting class.
17. Ball uniforms.
18. Two blackboards.

XI. COST ANALYSIS

Table 10 provides information concerning the average per pupil expenditure per grade and shows the relation between that figure and an achievement quotient. The expenditures are differentiated between general funds and compensatory funds and also between salary and other categories of expenditure.

It is clear from the table that salaries are the largest item of cost to Center Hill school as is the case in most schools.

The figure of $63.51 for average per pupil expenditures for compensatory funds is very low compared to that figure for other Title I schools. This could suggest that Center Hill school is very effective in integrating their Title I pupils into the total school program.

That there is no direct relation between greater expenditure and greater achievement is illustrated by the very small difference that exists between per pupil expenditures in the highest achieving classes (3rd and 4th grade) and in the others.

TABLE 10

COST ANALYSIS
1972-73
TOTAL AVERAGE DAILY ATTENDANCE (KDG. - 7) = 606

	Grades								
	Kdg.	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Average
Average Daily Attendance	46	64	86	79	82	78	91	80	76
Per Pupil Cost									
A. General Fund:									
1. Regular									
a. Salary	$546.68	$546.68	$546.68	$546.68	$546.68	$546.68	$546.68	$546.68	$546.68
b. Nonsalary	42.36	42.36	42.36	42.36	42.36	42.36	42.36	42.36	42.36
c. Total	$589.04	$589.04	$589.04	$589.04	$589.04	$589.04	$589.04	$589.04	$589.04
2. CIP									
a. Salary	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-
b. Nonsalary	-0-	1.07	1.07	1.07	1.07	-0-	-0-	-0-	.55
c. Total	$ -0-	$ 1.07	$ 1.07	$ 1.07	$ 1.07	$ -0-	$ -0-	$ -0-	$ .55
3. Total General Funds									
a. Salary	$546.68	$546.68	$546.68	$546.68	$546.68	$546.68	$546.68	$546.68	$546.68
b. Nonsalary	42.36	43.43	43.43	43.43	43.43	42.36	42.36	42.36	42.91
c. Total	$589.04	$590.11	$590.11	$590.11	$590.11	$589.04	$589.04	$589.04	$589.59
B. Compensatory Funds									
1. Title I									
a. Salary	$ -0-	$ -0-	$ 76.37	$ 76.37	$ 76.37	$ 76.37	$ 76.37	$ 76.37	$ 62.51
b. Nonsalary	-0-	-0-	1.22	1.22	1.22	1.22	1.22	1.22	1.00
c. Total	$ -0-	$ -0-	$ 77.59	$ 77.59	$ 77.59	$ 77.59	$ 77.59	$ 77.59	$ 63.51
2. Total Compensatory Funds									
a. Salary	$ -0-	$ -0-	$ 76.37	$ 76.37	$ 76.37	$ 76.37	$ 76.37	$ 76.37	$62.51
b. Nonsalary	-0-	-0-	1.22	1.22	1.22	1.22	1.22	1.22	1.00
c. Total	$ -0-	$ -0-	$ 77.59	$ 77.59	$ 77.59	$ 77.59	$ 77.59	$ 77.59	$ 63.51
C. Total Per Pupil Cost									
a. Salary	$546.68	$546.68	$623.05	$623.05	$623.05	$623.05	$623.05	$623.05	$609.19
b. Nonsalary	42.36	43.43	44.65	44.65	44.65	42.36	42.36	42.36	43.41
c. Total	$589.04	$590.11	$667.70	$667.70	$667.70	$665.41	$665.41	$665.41	$652.60
Predicted Achievement Quotient	---	---	82	112	112	92	95	102	99
Cost Per Unit of Predicted Achievement Quotient									
A. General Funds	$ -0-	$ -0-	$ 7.20	$ 5.27	$ 5.27	$ 6.40	$ 6.20	$ 5.77	$ 5.96
B. Compensatory Funds	-0-	-0-	.95	.69	.69	.84	.82	.76	.64
C. Total	$ -0-	$ -0-	$ 8.15	$ 5.96	$ 5.96	$ 7.24	$ 7.02	$ 6.53	$ 6.60

XII. CONCLUSIONS

The faculty and staff of Center Hill School are to be commended for developing a school environment that elicits positive responses from pupils and parents through questionnaires, and from pupils regarding the teachers through the School Sentiment Index (SSI). Many authorities consider the first step in development of the intellectual potential of children is the building of a positive attitude toward the school as a whole.

The next step would logically seem to be raising the level of aspiration toward improved academic achievement, if an increase in scores on standardized tests is to be effected. Possibly Center Hill faculty could devise programs to stimulate such aspiration through the use of resource persons and through some kinds of career awareness programs.

Among the chronic low achievers, a program might be developed which would exert a special effort at finding some area in which each child can excell. The main thrust here would be to counter the apparent effect on peer relationships that the low achievement level engenders. Possibly a way could be developed for each child to earn the respect of his peers through some kind of activity whether, art, music, sports, academic, leadership, craftsmanship, or some other area.

Having a stable community in which to work is a distinct advantage for the staff of Center Hill. Devising ways to build on this beginning to improve pupils' academic accomplishments is a challenge for each member. They seem to be taking appropriate steps in the direction of a comprehensive, effective instructional program.

APPENDIX

QUESTIONNAIRE FOR TEACHERS

SCHOOL _____

To the Teacher: This questionnaire is an effort to get at a kind of evaluation that test scores and other statistics do not give. Please be frank. All responses will be kept anonymous.

A. What behaviors do you hope to develop in pupils other than those measured by standardized academic achievement tests?

1. _____

_____

2. _____

_____

3. _____

_____

B. Approximately what per cent of your pupils achieved objectives related to the behaviors listed above? _____

Comments? _____

_____

_____

C. What factors about your school program aided in achieving the objectives in A above: _____

_____

_____

_____

D. What factors need to be added to or deleted from your school program to help pupils achieve these objectives? _____

_____

_____

_____

Please do not sign your name. Please return in school mail to Helen M. Branch, Research and Development, Administrative Building.

HMB:bb

QUESTIONNAIRE FOR PARENTS

SCHOOL _____

Parents: Please answer these questions about the elementary school your children attend. Do not put your name on the form. Put the form in the addressed, stamped envelope attached and put in the U. S. Mail. Please do this immediately, as we would like to use the information we get to help in planning for school for the coming school year.

1. How many children do you have in this school?
   Boys _____ Girls _____

2. This school is good for my children.
   Check one: Yes _____ No _____

3. The best thing about this school is _____
   _____
   _____
   _____

4. The worst thing about this school is _____
   _____
   _____
   _____

5. To help my children most, this school needs to _____
   _____
   _____
   _____
   _____
   _____
   _____

HMB:bb
4/18/73

QUESTIONNAIRE FOR PUPILS

SCHOOL _____

To the Pupil: Please give us your really honest answers to the following questions so that we can help your school be one of the best. Do not put your name on this paper.

1. How old are you? _____
2. Are you a boy or a girl? _____
3. Do you like school? Yes _____ No _____
4. What is the thing you think is best about your school? _____

_____

_____

_____

5. Is there something you want to be able to do in school that you cannot do? If yes, tell what it is: _____

_____

_____

_____

6. What do you have to do in school that you do not like to do? _____

_____

_____

_____

_____

7. List some things you think your school needs to make it a better school.

_____

_____

_____

_____

_____

_____

_____

HMB:bb

4/18/73